



**PeriProducer for the Business  
Communications Manager  
(BCM) Platform**

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# Revision History

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# **Preface**

Scope

Business Communications Manager (BCM) is a communications platform that delivers voice processing, business telephony applications, and data networking services. To extend these capabilities, Nortel integrated existing Interactive Voice Recognition (IVR) software to run on the BCM platform.

The *PeriProducer for the Business Communications Manager Platform* manual explains variances in PeriProducer functionality when it is integrated with BCM. It is not meant to replace the *PeriProducer User's Guide*; it is meant only to be used as a supplement to it.

For further information on BCM, see the BCM documentation.

Intended Audience

To use this guide effectively, users should complete an on-site system familiarization training program conducted as part of the initial system installation. In addition, they should be familiar with other site-specific operating procedures relating to the Business Communication Manager (BCM) due to specific BCM application functions or any other equipment to which the BCM may be connected. Basic knowledge of operating systems software is also assumed.

How to Get Help

This section explains how to get help for Nortel products and services.

Finding the latest updates on the Nortel Web site

The content of this documentation was current at the time the product was released. To check for updates to the latest documentation for the MPS 500 and 1000, click one of the following links:

<a href="#">MPS 500</a>	Takes you directly to the Nortel page for MPS 500 documentation at <a href="http://www130.nortelnetworks.com/cgi-bin/eserv/cs/main.jsp?cscat=DOCUMENTATION&amp;resetFilter=1&amp;tranProduct=12605">www130.nortelnetworks.com/cgi-bin/eserv/cs/main.jsp?cscat=DOCUMENTATION&amp;resetFilter=1&amp;tranProduct=12605</a>
<a href="#">MPS 1000</a>	Takes you directly to the Nortel page for MPS 1000 documentation at <a href="http://www130.nortelnetworks.com/cgi-bin/eserv/cs/main.jsp?cscat=DOCUMENTATION&amp;resetFilter=1&amp;tranProduct=11721">www130.nortelnetworks.com/cgi-bin/eserv/cs/main.jsp?cscat=DOCUMENTATION&amp;resetFilter=1&amp;tranProduct=11721</a>

Getting Help from the Nortel Web site

The best way to get technical support for Nortel products is from the Nortel Technical Support web site:

[www.nortel.com/support](http://www.nortel.com/support)

This site provides quick access to software, documentation, bulletins, and tools to address issues with Nortel products.



- download software, documentation, and product bulletins
- search the Technical Support web site and the Nortel Knowledge Base for answers to technical issues
- sign up for automatic notification of new software and documentation for Nortel equipment
- open and manage technical support cases

## **Getting Help over the phone from a Nortel Solutions Center**

If you do not find the information you require on the Nortel Technical Support web site, and have a Nortel support contract, you can also get help over the phone from a Nortel Solutions Center.

In North America, call 1-800-4NORTEL (1-800-466-7835).

Outside North America, go to the following web site to obtain the phone number for your region:

[www.nortel.com/callus](http://www.nortel.com/callus)

## **Getting Help from a specialist by using an Express Routing Code**

To access some Nortel Technical Solutions Centers, you can use an Express Routing Code (ERC) to quickly route your call to a specialist in your Nortel product or service. To locate the ERC for your product or service, go to:

[www.nortel.com/erc](http://www.nortel.com/erc)

## **Getting Help through a Nortel distributor or reseller**

If you purchased a service contract for your Nortel product from a distributor or authorized reseller, contact the technical support staff for that distributor or reseller.

## **How to Use This Manual**

This manual uses many standard terms relating to computer systems, software application functions, and the Internet. However, it contains some terminology that can be explained only in the context of the MPS Series. Refer to the *Glossary of Nortel's Media Processing Server Series Terminology* for definitions of MPS Series specific terms.

Read this manual from start to finish at least once. When you are familiar with the document, you can use the Table of Contents to locate topics of interest for reference and review.

If you are reading this document online, use the cross-reference links (shown in [blue](#)) to quickly locate related topics. Position your cursor over the cross-reference link and click once. Click any point in a Table of Contents entry to move to that topic. Click the page number of any Index entry to access that topic page.

Familiarize yourself with various specialized textual references within the manual see *Conventions Used in This Manual* on page 11.

Periphonics is now part of Nortel. The name Periphonics, and variations thereof, appear in this manual only in reference to a product (for example, the PERImps package, the **perirev** command, and so on).

## Organization of This Manual

This manual is organized in the following way:

### **Chapter 1 — Introduction to the BCM - IVR Integration**

Overviews the Business Communication Manager (BCM) and what functionality the IVR integration brings to BCM. Explains how to access documentation on Helmsman.

### **Chapter 2 — Working with the BCM Voice File System**

Describes the Voice File System (VFS), and explains how to work with file conversion utilities.

### **Chapter 3 — Working with PeriProducer blocks for BCM**

Describes exceptions to and variances in PeriProducer block functionality for BCM.

### **Chapter 4 — Environments support**

Overviews environments and notes exceptions to and variances in environments support for BCM.



### **Chapter 5 — Resources support**

Overviews resources and notes exceptions to and variances in resources support for BCM.



## Conventions Used in This Manual

This manual uses different fonts and symbols to differentiate between document elements and types of information. These conventions are summarized in the following table.

Conventions Used in This Manual (Sheet 1 of 2)

Notation	Description
Normal text	Normal text font is used for most of the document.
<i>important term</i>	The Italics font introduces new terms, highlights meaningful words or phrases, or distinguishes specific terms from nearby text.
<b>system command</b>	This font indicates a system command or its arguments. Enter such keywords exactly as shown (that is, do not fill in your own values).
<b>command, condition and alarm</b>	Command, Condition and Alarm references appear on the screen in magenta text and reference the <i>Command Reference Manual</i> , the <i>MPS Developer User's Guide</i> , or the <i>Alarm Reference Manual</i> , respectively. Refer to these documents for detailed information about <b>Commands</b> , <b>Conditions</b> , and <b>Alarms</b> .
file name / directory	This font highlights the names of disk directories, files, and extensions for file names. It also shows what is displayed on a text-based screen (for example, to show the contents of a file.)
on-screen field	This font indicates field labels, on-screen menu buttons, and action buttons.
<KEY NAME>	A term that appears within angled brackets denotes a terminal keyboard key, a telephone keypad button, or a system mouse button.
<i>Book Reference</i>	This font indicates the names of other publications referenced within the document.
cross-reference	A cross-reference appears on the screen in blue. Click the cross-reference to access the referenced location. A cross-reference that refers to a section name accesses the first page of that section.
	The Note icon identifies notes, important facts, and other keys to understanding.
	The Caution icon identifies procedures or events that require special attention. The icon indicates a warning that serious problems may arise if the stated instructions are not followed implicitly.

### Conventions Used in This Manual (Sheet 2 of 2)

Notation	Description
	The flying Window icon identifies procedures or events that apply to the Windows operating system only. <sup>(1)</sup>
	The Solaris icon identifies procedures or events that apply to the Solaris operating system only. <sup>(2)</sup>

(1): Windows and the flying Window logo are either trademarks or registered trademarks of Microsoft Corporation.

(2): Solaris® is a registered trademark of The Open Group in the U.S. and other countries.

## Solaris and Windows Conventions

This manual depicts examples (command line syntax, configuration files, and screen shots) in Solaris format. Windows-specific commands, procedures, or screen shots are shown when required. The following table lists general operating system conventions used with either the Solaris or Windows operating system.

	Solaris	Windows
Environment	<code>\$PPROHOME</code>	<code>%PPROHOME%</code>
Paths	<code>\$PPROHOME/bin</code>	<code>%PPROHOME%\bin</code>
Command	<code>&lt;command&gt; &amp;</code>	<code>start /b &lt;command&gt;</code>

## Two-Button (Windows) vs. Three-Button (Solaris) Mouse

<SELECT>	Left button
<ADJUST>	Left and Right together
<MENU>	Right button



<SELECT>	Left button
<ADJUST>	Middle button
<MENU>	Right button



## Trademark Conventions

The following trademark information is presented here and applies throughout for third party products discussed within this manual. Trademarking information is not repeated hereafter.

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# Introduction to the BCM - IVR Integration

This chapter covers:

1. The BCM - IVR integration
2. What functionality does the IVR integration add to the BCM?
3. Accessing complete documentation for BCM

### The Business Communications Manager (BCM) - Interactive Voice Response (IVR) Integration

Business Communication Manager 4.0 (BCM) is a fully-integrated communication system for small businesses, government and retail networks, and enterprise branch offices.

*Interactive Voice Response* is a telecommunications system that uses a prerecorded database of voice messages to present options to a user, typically over telephone lines. Users can input information using the keys on their touchtone phones.

The BCM 4.0 release leverages IVR functionality by integrating existing Nortel Media Processing Server (MPS) Series IVR solution with BCM hardware.

#### What functionality does IVR integration add to the BCM?

The BCM 4.0 offers interactive voice response capabilities through Interactive Voice Response 2.1 (IVR 2.1). IVR 2.1 is a suite of products that lets businesses create applications callers can use to access information by responding to a series of prompts through their touchtone phones.

The IVR applications are developed for the specific customer's needs and in many cases are integrated with databases to enable real-time queries and updates. Some examples of IVR applications are:

- A pharmacy's application that lets customers access their accounts, receive real-time status on their prescription refills, and request prescription refills.
- A bus station's IVR application that lets customers book seats on a trip or review projected departure times.
- A bookstore's application that lets customers hear store hours, purchase books, and check the delivery of an existing order.

The collection of hardware and software on which the IVR applications are created and administered on BCMs is collectively referred to as the BCM-IVR 2.1 system.



For information on variations in PeriView, PeriReporter, and COMMGR functionality for the BCM - IVR integration, see the ***BCM - IVR Integration Supplement*** manual.



## Accessing complete documentation for BCM

For further information on all these products, download current technical documentation from Helmsman Express, the Nortel online documentation resource.

To access documentation:

1. Go to [www.nortel.com](http://www.nortel.com).
2. Highlight the **Support & Training** dropdown list on the upper half of the browser window.
3. Click **Technical Documentation**.
4. Under the heading **Other Resources** at the bottom right of the browser, click the **Helmsman Express** link.
5. If you are a registered user of Helmsman, log on. If you are not already a registered user of Helmsman, register now by following the instructions online.
6. In the list of Products, click the **Business Communications Manager** and **Norstar** link, then choose the **Business Communications Manager 4.0** link.

## Documentation Issues

### Issue

Documentation currently refers to hardware as the MPS Series.



Wherever the documentation uses MPS Series, assume that this refers to the BCM, unless otherwise noted.



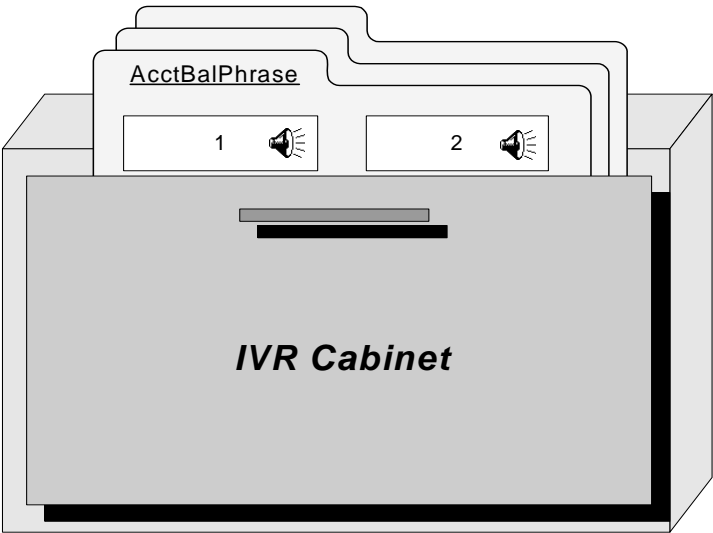
# BCM and the Voice File System (VFS)

This chapter covers:

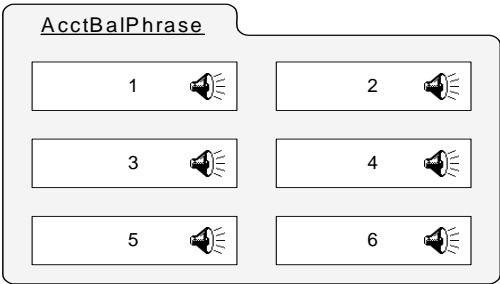
1. Elements of the Voice File System (VFS)
2. Convert MMF files to VFS phrase files
3. Convert VFS phrase files to MMF files

The BCM Voice File System (VFS)

Business Communication Manager (BCM) stores application voice prompts and caller message recordings in the Voice File System (VFS). Elements of the Voice File System are:



**Cabinets.** A cabinet acts as a directory. It contains any number of voice files. All prerecorded voice prompts are stored in a cabinet called IVR. All caller message recordings (CMRs) are stored in a cabinet called IVR\_CMV.



**Phrase files.** A phrase file contains any number of phrases. For each multimedia format (MMF) file, a file is created in the IVR cabinet.



**Phrases.** A phrase (.ph) is a prerecorded element that is spoken to the caller. PhraseNumbers identify a phrase within a file. Phrases correspond to .mmi files in an MMF file.



**Segment files.** Segment files (.seg) contain raw audio data and are used for caller message recordings (CMRs).

## Convert MMF Files to VFS Phrase Files using the MMF2VFS command

Existing MMF files must be converted in order for them to work with BCM.

You can convert existing MMF files with BCM's Element Manager. MMF files are converted automatically when IVR prompts are loaded in the Element Manager (see BCM's *Interactive Voice Response Installation and Configuration Guide* for details).

The **mmf2vfs** command converts MMF files to VFS phrase files. Use the following format when issuing the **mmf2vfs** command:

```
mmf2vfs [-m <mmf filename>] [-f <filetype>] [-c <cabinetname>] [-v
<vfsfilename>] [-e <start:end>] [-h] [-d] [-l] [-r <vfs_filename>] [-o]
```

These options are available with the **mmf2vfs** command:

Option	Description	Required?
<b>-m</b>	The full pathname to the MMF file. You do not need to specify an .mmi or .mmd extension.	Yes
<b>-f</b>	The output file type. Use <b>s</b> for a .seg (segment) file or <b>p</b> for a .ph (phrase) file. Omitting this option sets the file type to <b>p</b> .	No
<b>-c</b>	The full pathname to the cabinet where you want to store the vfs file. If the cabinet does not exist, <b>mmf2vfs</b> creates one. Cabinets are stored in /var/nv/voicecti/cabinets as <cabinetname>.CAB. Omitting this option stores the file in the <i>IVR</i> cabinet.	No
<b>-v</b>	The full pathname to the vfs file. The vfs file takes the same name as the .mmf file specified in the <b>-m</b> option. If a vfs file already exists, it is overwritten. mmf2vfs attaches a .ph extension for phrase files and a .seg extension for segment files.	No
<b>-e</b>	The Element Access Pointer (EAP) number, or range of EAP numbers, to convert. A single EAP can be converted to a voice segment file or to a phrase in a phrase file. An EAP, or range of EAPs, can be converted to a vfs phrase ID in a phrase file with phrase IDs corresponding to EAP numbers. A range of EAPs can not be converted to individual voice segment files. Omitting this option converts all EAPs in the MMF file to a .ph (phrase) file.	No
<b>-h</b>	Displays help for all options.	No
<b>-d</b>	Turns on debug logging.	No
<b>-l</b>	Displays a report of the current contents of the mmfxref.dat file.	No
<b>-r</b>	Removes the vfs file from the Voice File System and all references to it from the mmfxref.dat file.	No
<b>-o</b>	Enables error log output. It is used for non-interactive mode.	No

## MMF2VFS Command Line Examples

```
mmf2vfs -m numdemo
```

Converts the entire contents of /var/nn/ivr/mmf/numdemo to its equivalent vfs phrase file /var/nn/ivr/vfs/numdemo.ph and adds the file to the IVR cabinet.

```
mmf2vfs -m numdemo -f p -c bcmivr -v vfsnumdemo -e 1:10
```

Converts EAPs 1 through 10 in the mmf file /var/nn/ivr/mmf/numdemo to phrase IDs 1 through 10 of the vfs phrase file /var/nn/ivr/vfs/numdemo.ph. The phrase files are stored in the cabinet /var/nn/voicecti/cabinets/bcmivr.CAB.

```
mmf2vfs -m numdemo -f p -c bcmivr -v vfsnumdemo
```

Converts the entire contents of the mmf file /var/nn/ivr/mmf/numdemo to the vfs phrase file /var/nn/ivr/vfs/numdemo.ph. The phrase file is stored in the cabinet /var/nn/voicecti/cabinets/bcmivr.CAB.

```
mmf2vfs -m numdemo -f s -c bcmivr -v voicesegment1 -e 1
```

Converts EAP 1 in the mmf file /var/nn/ivr/numdemo to a voice segment file in the vfs file /var/nn/ivr/vfs/voicesegment1.seg. The segment file is stored in cabinet /var/nn/voicecti/cabinets/bcmivr.CAB.

```
mmf2vfs -l
```

Displays the contents of /opt/vps/common/etc/mmfxref.dat file. Output shows cabinets created using mmf2vfs, the phrase and segment files in each cabinet, and the EAP numbers and phrase IDs for each phrase in the cabinet. The following is an abbreviated mmf2vfs -l sample output:

Eap No	phraseID	Element	File	mmf file	vfs file
-----	-----	-----	----	-----	-----
1	1	TDD0	p	tdd	tdd.ph
2	2	TDD1	p		
...					
81	81		p		
1	1	.	p	dtmf	dtmf.ph
2	2	,	p		
...					
43	24	FAKING	p		

MMF Cross Reference File Stats

```
-----
file contains : 105 records
contains      : 2 mmf conversions
created on    : Wed Jun 15 17:59:04 2005
```

## Removing VFS Files from the VFS Files System

Use the **vfsrm** command to remove VFS files from the VFS files system. Use the following format when issuing the **vfsrm** command:

```
vfsrm [-v <vfs filename>] [-f <filetype>] [-c <cabinetname>] [-h] [-d] [-o]
```

These options are available with the **vfsrm** command:

Option	Description	Required?
<b>-f</b>	The output file type. Use <b>s</b> for a .seg (segment) file or <b>p</b> for a .ph (phrase) file. Omitting this option sets the file type to <b>p</b> .	No
<b>-c</b>	The full pathname to the cabinet where the vfs file is stored. Omitting this option sets the pathname to the IVR cabinet. Cabinets are stored in /var/nm/voicecti/cabinets as <cabinetname>.CAB. No other extensions are accepted.	No
<b>-v</b>	The vfs file name, without extension or path. The vfs file to be removed must already exist in /var/nm/ivr/vfs/. This option is required.	Yes
<b>-h</b>	Displays help for all options.	No
<b>-d</b>	Turns on debug logging.	No
<b>-o</b>	Enables error log output. It is used for non-interactive mode.	No

## VFSRM Command Line Examples

**vfsrm -v numdemo**

Removes the vfs phrase file `/var/nn/ivr/vfs/numdemo.ph` from the IVR cabinet in the VFS file system. References to phrases contained in this phrase file and cabinet are removed from the `mmfxref.dat` file.

**vfsrm -v numdemo -c bcmivr**

Removes the vfs phrase file `/var/nn/ivr/vfs/numdemo.ph` from the bcmivr cabinet in the VFS file system. References to phrases contained in this phrase file and cabinet are removed from the `mmfxref.dat` file.

**vfsrm -v vfsnumdemo -f s**

Removes the vfs segment file `/var/nn/ivr/vfs/numdemo.seg` from the IVR cabinet in the VFS file system. The reference to the phrase contained in this segment file and cabinet are removed from the `mmfxref.dat` file.

## Correlating Data in mmfxref.dat to the Voice File System

Use the **vfs1s** command to display a summary of the Voice CTI `mbQueryCabinet()` data and `mbQueryFile()` data for the contents of a VFS cabinet. This is used to correlate data in the `mmfxref.dat` file (`'mmf2vfs -1`) to the actual contents of the Voice File System.

The file sizes and dates for all phrase and segment files in the IVR cabinet are displayed first, followed by the storage statistics for the entire cabinet. In the output, the following symbols are used:

*D* = Drive Letter (*BMC3.X=C-Z, BCM4.0=D*)  
*P/S/F* = File type (*phrase, segment, fax, and so on*)  
*Number* = Number of files in the cabinet  
*Max* = Maximum space allowed (*Kilobytes*)  
*Used* = Actual space used (*Kilobytes*)

These options are available with the **vfs1s** command:

Option	Description	Required?
<b>cabinet</b>	The name of a VFS cabinet in <code>/var/nn/voicecti/cabinets</code> . This displays the <code>mbQueryCabinet()</code> data. This option is required.	Yes
<b>filespec</b>	Optional filenames within the cabinet for which the <code>mbQueryCabinet()</code> data is displayed. Wildcards (filenames containing an asterisk) are accepted. If omitted, the default setting is <code>*</code> .	No



## VFSLS Command Line Examples

### **vfsls IVR**

Displays the file information for all files in the IVR cabinet, followed by the cabinet information:

```

tdd.ph D      P      387388 Wed Jun 15 17:57:10 2005
dtmf.ph D      P      998272 Wed Jun 15 18:58:25 2005

Type      Number      Max (kB)      Used(kb)
-----
Voice     0              4294967295    0
Phrase    2              4294967295    1353
Fax       0              4294967295    0
Text      0              4294967295    0
Other     0              4294967295    0

```

### **vfsls IVR dtmf.ph**

Displays file information for all files in the cabinet, followed by cabinet information:

```

dtmf.ph D      P      998272 Wed Jun 15 18:58:25 2005

Type      Number      Max(kB)      Used(kB)
-----
Voice     0              4294967295    0
Phrase    2              4294967295    1353
Fax       0              4294967295    0
Text      0              4294967295    0
Other     0              4294967295    0

```

### Deleting Cabinets from the Voice File System

Use the **vfsrcab** command to remove cabinets from the VFS file system. To be deleted, the cabinet must exist and be empty.

These options are available with the **vfsrcab** command:

Option	Description	Required?
<b>cabinet</b>	The name of a VFS cabinet in /var/nn/voicecti/cabinets. This option is required.	Yes

### VFSLS Command Line Examples

```
vfsrcab IVR_CMR
```

Deletes the cabinet file IVR\_CMR.CAB from VFS, removing the empty cabinet file from /var/nn/voicecti/cabinets/.

# **Working with PeriProducer Blocks for BCM**

**This chapter covers:**

- 1. PeriProducer Configuration**
- 2. PeriProducer Blocks  
Overview**
- 3. BCM-IVR 2.1 PeriProducer  
Toolkit**
- 4. Block Functionality**

### PeriProducer Configuration

Before creating BCM applications with PeriProducer, check the following configuration prerequisite:

- If your application needs to access ANI digits, DNIS digits, or both, configure the switch to send ANI/DNIS to the application for all lines. Refer to the ***BCM Programming Operations Guide*** to use Element Manager to configure the switch to send ANI/DNIS.

### PeriProducer Blocks Overview

PeriProducer uses a set of blocks to build applications. Each block represents a function the application can perform. Some PeriProducer blocks have variations in functionality when used in the BCM-IVR context. Some PeriProducer blocks, such as those in the BCM-IVR 2.1 Toolkit, are unique to the BCM-IVR context see [BCM-IVR 2.1 PeriProducer Toolkit on page 29](#).

### Variations in Block Functionality

The following blocks are either not supported for BCM or have only partial functionality:

- *Answer* (For additional information, see [Answer](#) on page 41.)
- *Disconnect* (For additional information, see [Disconnect](#) on page 42.)
- *Environment* (For additional information, see [Environment](#) on page 43.)
- *Phone Op* (For additional information, see [Phone Op](#) on page 44.)
- *Read* (For additional information, see [Read](#) on page 47.)
- *Receive Fax* (For additional information, see [Receive Fax](#) on page 48.)
- *Record* (For additional information, see [Record](#) on page 49.)
- *Resource* (For additional information, see [Resource](#) on page 50.)
- *Select* (For additional information, see [Select](#) on page 51.)
- *Send Fax* (For additional information, see [Send Fax](#) on page 52.)
- *Speak* (For additional information, see [Speak](#) on page 53.)
- *System* (For additional information, see [System](#) on page 54.)

Blocks not listed here maintain their full functionality. For more information about all PeriProducer blocks, see the ***PeriProducer 3.00 User's Guide***.

### New Blocks for PeriProducer 3.00

The following blocks are new to PeriProducer 3.00:

- *Abort*
- *Call Control*
- *Call Progress Detection*
- *Edit Sequence*
- *Line Operations*

For more information about all PeriProducer blocks, see the ***PeriProducer 3.00 User's Guide***.

## PeriProducer Blocks for the BCM Environment

The following PeriProducer blocks, found in the BCM-IVR 2.1 PeriProducer Toolkit, are unique to the BCM environment:

- *Set Call Data*
- *Get Call Data*
- *Park Call*
- *Check Park Status*
- *Begin Page*
- *End Page*

For more information on the BCM-IVR 2.1 Toolkit, see below.



**Running applications that use options not supported by BCM may result in an error. For best results, always test applications before making them available to users.**

## BCM-IVR 2.1 PeriProducer Toolkit

The BCM-IVR PeriProducer Toolkit is a group of six blocks that enable applications to perform BCM platform-specific operations. The six BCM-IVR 2.1 Toolkit blocks are:

- *Set Call Data*
- *Get Call Data*
- *Park Call*
- *Check Park Status*
- *Begin Page*
- *End Page*

## BCM-IVR 2.1 PeriProducer Toolkit Feature Extensions

The following feature extensions, unique to the BCM-IVR system, are enabled by the BCM-IVR Toolkit blocks:

### Set Call Data/Get Call Data

With this feature, data associated with a call can be passed between BCM applications. For example, with the Set Call Data/Get Call Data feature, a PIN number or Credit Card number entered by a caller can be passed along to different BCM applications.

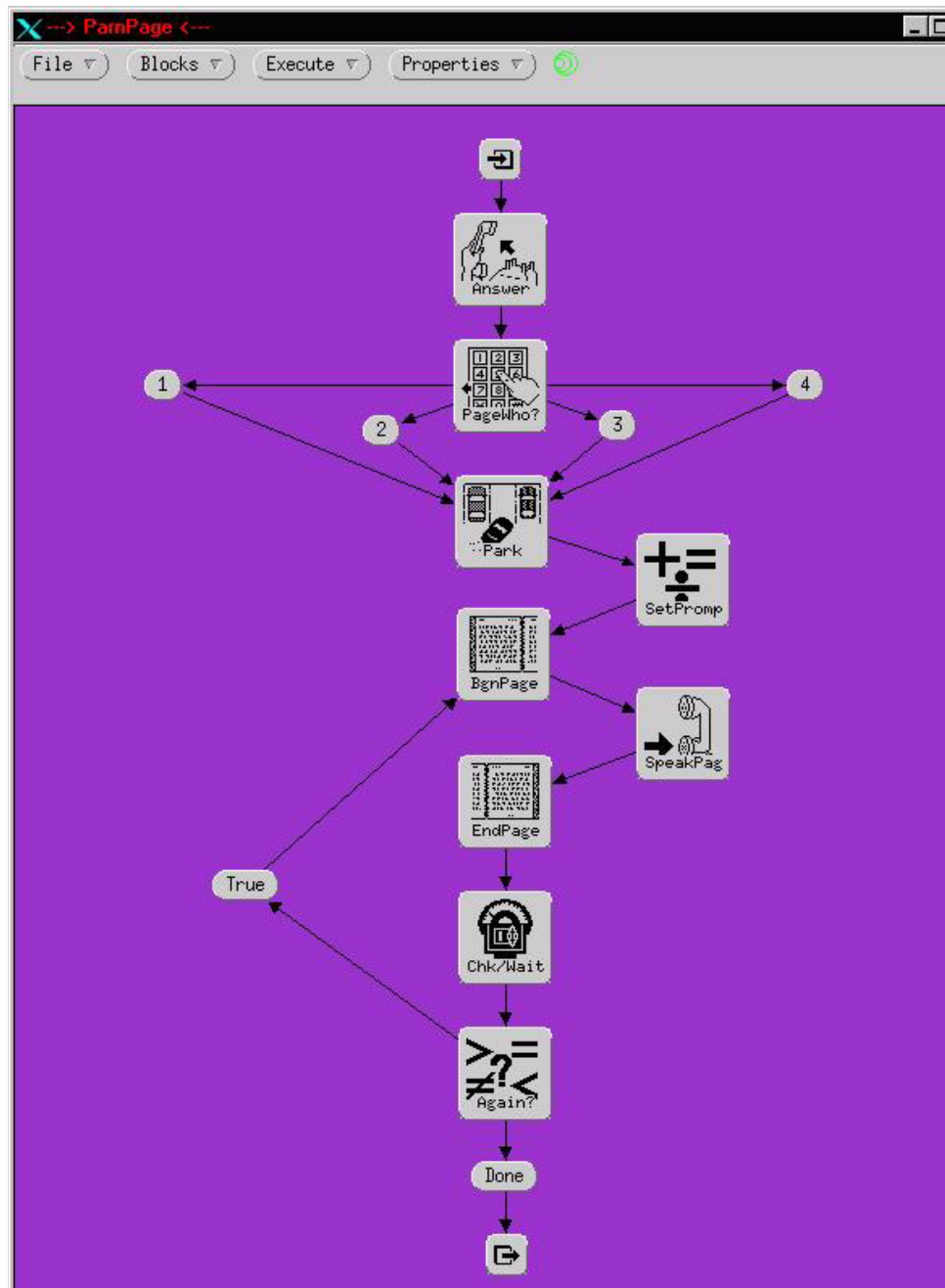
The Set Call Data block associates up to five strings of data per call. Each string of data is identified by a *label*. The BCM-IVR Toolkit includes a folder of constant values for labels to let BCM applications written in PeriProducer share data with other BCM applications.

The Get Call Data block retrieves data previously associated with the call.

### **Park 'n Page**

The Park 'n Page feature, enabled when the Park block is used in combination with the Page block, lets the BCM system to put an external call on hold while the system pages the appropriate personnel to retrieve the call. A caller on hold is treated to either a silent audio stream, a period tone audio stream or Music on Hold input. When a call is parked, a retrieval code is passed back to the application. This retrieval code is relayed in the page and lets other devices take control of the call.

If a page is initiated when a call is not parked, the call is implicitly put on hold and cannot be retrieved by personnel responding to the page. When the page function is complete, the call is taken off hold and returned to the IVR application's call flow. The following figure shows a sample Park 'n Page application flow:



### Park/Page Statistics

Application statistics for the Park'n Page functionality are maintained within the BCM-IVR 2.1 PeriProducer Toolkit. These statistics are viewable using PeriReporter and can be consolidated and archived like any other statistics collected by PeriReporter (for more information, see the *PeriReporter User's Guide*).

Park 'n Page application statistics are collected at 15-minute intervals and then consolidated on hourly, daily, weekly, monthly and yearly bases. With PeriConsolidator, you can configure the granularity of statistic file consolidation,

including the duration that statistics files are retained.

User-defined reports are generated using PeriDefiner. By default, no predefined reports are provided for Park 'n Page. Only the raw statistics are viewable. These statistics can be displayed by hour, day, week, month, and so on.

The raw statistics provided by the BCM-IVR Toolkit include:

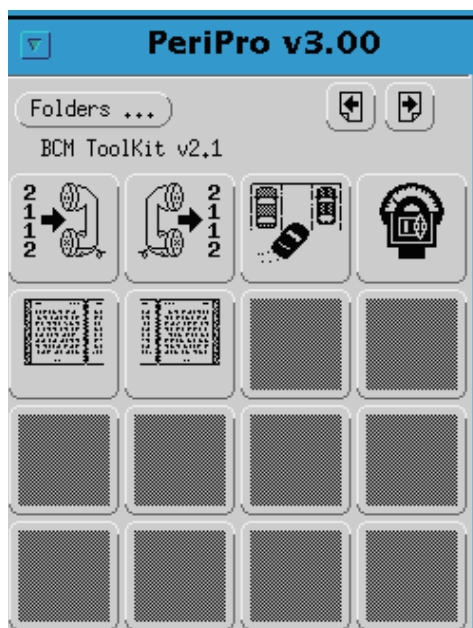
- **PageAttemptCnt:** number of attempted pages
- **PageCnt:** number of successful pages
- **PageFailureCnt:** number of failed pages (paging system in use)
- **ParkAttemptCnt:** number of attempted park calls
- **ParkCallCnt:** number of the parked call that failed
- **ParkFailureCnt:** number of failed parked calls that failed
- **ParkDuration:** total number of seconds calls have been parked
- **ParkTransferSuccessCnt:** number of times parked calls were retrieved
- **ParkAbandonedCnt:** Number of times parked callers hung up
- **ParkReturnedCnt:** Number of times parked calls were returned to the application
- **ParkInternalCnt:** Number of internally parked calls

From the above-noted statistics, any custom reports can be created, including:

- Average duration of parked calls ( $\text{ParkDuration}/\text{ParkCallCnt}$ )
- Average number of pages per call ( $\text{PageCnt}/\text{ParkCallCnt}$ )
- Average number of pages for a user-definable period ( $\text{PageCnt}/x$ )

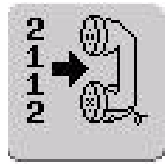
### BCM-IVR 2.1 PeriProducer Toolkit Blocks

The BCM-IVR 2.1 PeriProducer Toolkit has six blocks:





## Set Call Data



**Set Call Data** associates data with a call. Multiple (up to five) strings of data can be stored per call. Each string of data is identified by a Label. Constant values for Labels are included as part of the BCM Toolkit (BCM-Constants); however, system developers can also custom-define Labels. Predefined Constant Labels are used if BCM applications developed in PeriProducer share data with other BCM applications.

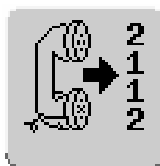
When Set Call Data block is selected, the Set Call Data window appears:



### Set Call Data Options

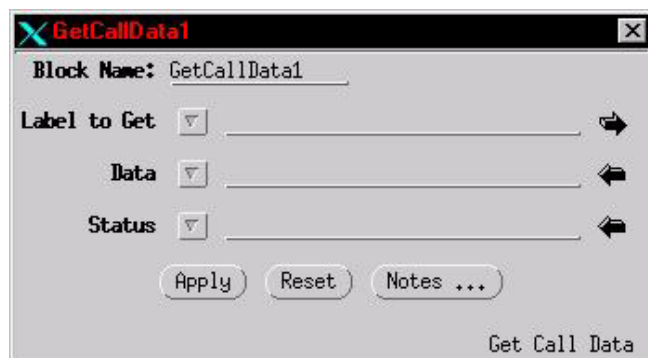
Option	Description
Label to Set	<p>Specify the label used in setting call data in the Label to Set field. The number value can be any number greater than 0 and less than 65536 and may be either a static expression or a datacard. Use predefined Label values from the BCM/Constants folder when sharing call data between different types of BCM applications.</p> <p>There are several predefined labels in the BCM/Constants folder:</p> <p>CallDataLabels.CallAnsweringMailboxNumber  CallDataLabels.VoiceMailLogin  CallDataLabels.IdentificationNumber</p>
Data	<p>String of characters under a particular Label that is associated with a call. This string of characters is later retrieved by the Get Call Data function. The string used can be up to 42 characters long and can be either a static expression or the contents of a datacard.</p>

## Get Call Data



**Get Call Data** retrieves call data (a string of text) from a call using the specified Label.

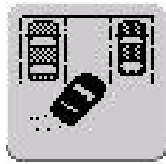
When **Get Call Data** block is selected, the **Get Call Data** window appears:



## Get Call Data Options

Option	Description
Label to Get	Specifies the Label for which call data is retrieved. The Label specified must match a previously set Label, such as a Label from the BCM Constants folder or a custom-defined Label. The number value used can be either a static expression or a datacard.
Data	Specifies the character datacard that holds the retrieved data upon completion.
Status	Specifies the character datacard that contains information on the status of the operation upon completion.  There are several predefined <b>Status</b> labels in the BCM/Constants folder: Statuses.GetCallData.Ok Statuses.GetCallData.CallDataNotFound Statuses.GetCallData.NoCall Statuses.GetCallData.BadParam

## Park Call



**Park Call** puts a call on hold so that it may be retrieved by another device in the BCM system. While parked, the caller is connected to one of three on-hold streams:

- a silence audio stream;
- a periodic tone audio stream; or
- the Music On Hold input of the BCM.

When a call is parked, a “Park Code” is returned to the application. When Park Call is used in combination with the Page and Speak blocks, a page is sent to personnel advising that a call is on hold and relaying the code needed to retrieve the call. The Page block is described in more detail below. See *PeriProducer User’s Guide* for more information on PeriProducer blocks.

A call is returned to the application if it is not retrieved within a specified amount of time.

On-hold treatment is configured in the BCM and applies only to external callers. Internal callers receive a silent audio stream when on hold.

An parked internal call is not be returned to the application after the specified time period has expired. As such, there is no need to execute the Check Park Status command. For additional information, see [Check Park Status](#) on page 37.

If a page is initiated when a caller is not parked, the caller is put on hold and receives the configured on-hold treatment described above. The call cannot be retrieved at this time by personnel responding to the page. Rather, personnel must wait for the page function to finish. The caller is then taken off hold and put back in the IVR application’s call flow.

The screenshot shows a configuration window titled "Park1". It contains the following fields and controls:

- Block Name:** Park1
- Park Code:** A dropdown menu with a right-pointing arrow.
- Status:** A dropdown menu with a right-pointing arrow.
- Abort Page on Completion? (T/F):** A dropdown menu with a right-pointing arrow.
- Buttons:** "Apply", "Reset", and "Notes ..."
- Page Number:** 1
- Block Label:** Park Call

### Park Call Options

Option	Description
Park Code	Character datacard containing the Park Code. The Park Code is a unique code in the system that is used by personnel to retrieve the parked call from another device.
Status	<p>Character datacard containing the status of the operation upon completion.</p> <p>There are several predefined Park Call Status Constants:</p> <p>Statuses.ParkCall.Ok</p> <p>Statuses.ParkCall.NoParkPrefix (<i>no Park prefix has been configured</i>)</p> <p>Statuses.ParkCall.NoParkRetrievalCodes (<i>no retrieval codes were available</i>)</p> <p>Statuses.ParkCall.NoCall</p> <p>Statuses.ParkCall.BadParam</p>
Abort Page on Completion	Boolean value indicating how paging behaves when a parked call is completed (abandoned, retrieved, or timeout). When true, speak commands to the paging system are aborted when the parked call completes.

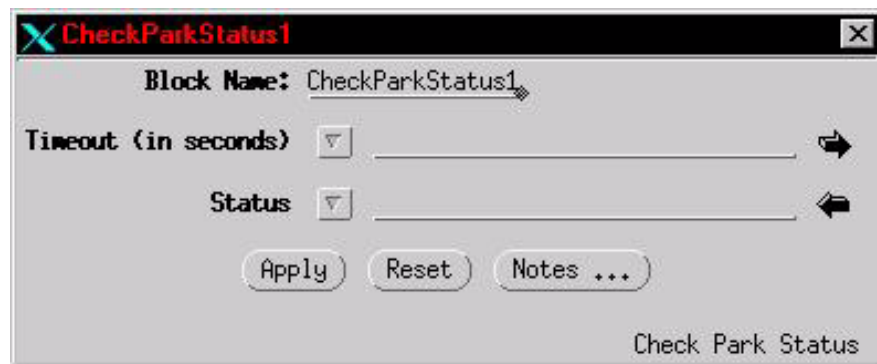
## Check Park Status



Check Park Status checks the status of call parked in the system. If a Timeout value is specified (in seconds), the application blocks in this toolkit block for the specified number seconds. If the Timeout value is 0, the block immediately completes.

The status of a parked call indicates either that a specified timeout has occurred and the call is still parked or the call has been automatically unparked by the system as a result of being parked too long.

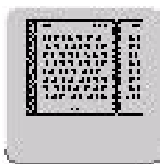
The *disc* condition indicates that a call has been retrieved by another device in the system or that the caller disconnected while parked.



## Check Park Status Options

Option	Description
Timeout	The maximum amount of time in seconds to wait for the call to be retrieved before returning control to the application.
Status	<p>Character datacard containing the status of the operation upon completion.</p> <p>There are two predefined Status labels in the Constants folder:</p> <p>Statuses.CheckParkStatus.Timeout (<i>Timeout occurred, call still parked</i>)</p> <p>Statuses.CheckParkStatus.NotParked (<i>No call is parked</i>)</p>

### Begin Page



The Begin Page block attaches the voice port to a paging system. Once attached, the application's speech function are heard over the paging system.

There are three Page types available:

- Internal zone
- External speaker
- Both

The Application Developer can specify page zones. Page zone values only apply if the Page type is **Internal Zone** or **Both**.



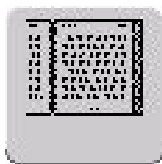
The screenshot shows a configuration window titled "BeginPage1". It contains the following fields and controls:

- Block Name:** A text field containing "BeginPage1".
- Page Type:** A dropdown menu with a right-pointing arrow.
- Page Zone:** A dropdown menu with a right-pointing arrow.
- Status:** A dropdown menu with a left-pointing arrow.
- Buttons:** "Apply", "Reset", and "Notes ..." buttons.
- Footer:** The text "Begin Page" is displayed in the bottom right corner.

**Begin Page Options**

Option	Description
Begin Page	<p>Character datacard indicating the Page type.</p> <p>There are three predefined Page Type Constants:</p> <p>PageTypes.InternalZone PageTypes.ExternalSpeaker PageTypes.Combined</p>
Page Zone	<p>Character datacard indicating the Page zone. Page zones are customized for the Application Developer and defined as Constants.</p> <p>Up to six different Page zones can be defined:</p> <p>PageZones.AllZones PageZones.Zone1 PageZones.Zone2 PageZones.Zone3 PageZones.Zone4 PageZones.Zone5 PageZones.Zone6</p>
Status	<p>Character datacard containing the status of the operation upon completion.</p> <p>There are two predefined Begin Page Status constants:</p> <p>Statuses.BeginPage.Ok Statuses.BeginPage.BadParam</p>

### End Page



The End Page block detaches the voice port from the paging system. An application must perform this operation whenever it is not actively paging since the paging system can only be connected to one device at a time. If an application issues a page and then waits to try again at a later time, it must end the page before it waits.

An application can be connected to the paging system for a maximum of 3 minutes. After that time, the voice port automatically disconnects from the paging system.





## Variations in Functionality of Standard PeriProducer Blocks

### Answer



The Answer block determines the manner in which an application handles an incoming call. An Answer block is generally used to cause the application to receive a call (that is, answer the phone) and provide a specified message (for example, “Welcome to the automated system.”) to the caller.

For complete information on the Answer block, see the *PeriProducer User’s Guide*.

Block Name: Answer1

Action: Answer Call

CID: System.DefaultCID

Ring Count: 1

Beep Tone: Beep

Send Protocol Data: ☐ Data Length:

Receive Protocol Data: ☐ Data Length:

Greeting...

☒ Wait

☐ Failure

Detect:

☐ Touch-Tones

☐ Fax

Apply Reset Notes... Local Context...

ANSWER the Phone with a Greeting

Function	Variation
Answer After ... Ring to Ring Count	Not supported. To set this on the BCM, start the Element Manager, start the CallPilot Manager, and go to Lines Administration. Set the Line Properties to the number of rings after which to answer calls.
Send/Receive Protocol Data	Not supported
Detect: Fax, Touch-Tones	Not supported



For applications that receive faxes, you may want to dedicate a specific line to receive them. Depending on your supported protocols, you can then obtain the dialed phone number (DNIS) to learn whether a fax should be received.

### Disconnect



The Disconnect block causes the application to hang up its phone line. Once this happens, the application can no longer perform phone line functions except to outdial. Generally, when the caller is disconnected, the system invokes certain low-level functions to perform clean-up procedures on the phone line and its data buffers. This prepares the line for the next incoming call.

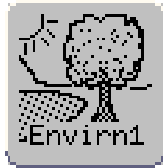
For complete information on the Disconnect block, see the *PeriProducer User's Guide*.

The screenshot shows a configuration window titled "Disc1". It contains the following fields and controls:

- Block Name:** Disc1
- Wait:** A checked checkbox.
- CID:** A dropdown menu showing "System.DefaultCID".
- Send Protocol Data:** A dropdown menu.
- Send Length:** A dropdown menu.
- Receive Protocol Data:** A dropdown menu.
- Receive Length:** A dropdown menu.
- Buttons:** "Apply", "Reset", and "Notes ...".
- Footer:** DISCONNECT (Hang up)

Function	Variation
Send/Receive Protocol Data	Not supported.

## Environment



Environment options control functions and application behavior. They can be set or changed in an Environment block.

When you make changes to environment options, the changes are specific only to the current application phone line and remain in effect for that phone line until explicitly changed.

For a list of supported environments, see [Environments Support on page 55](#). For complete information on the Environment block, see the *PeriProducer User's Guide*.

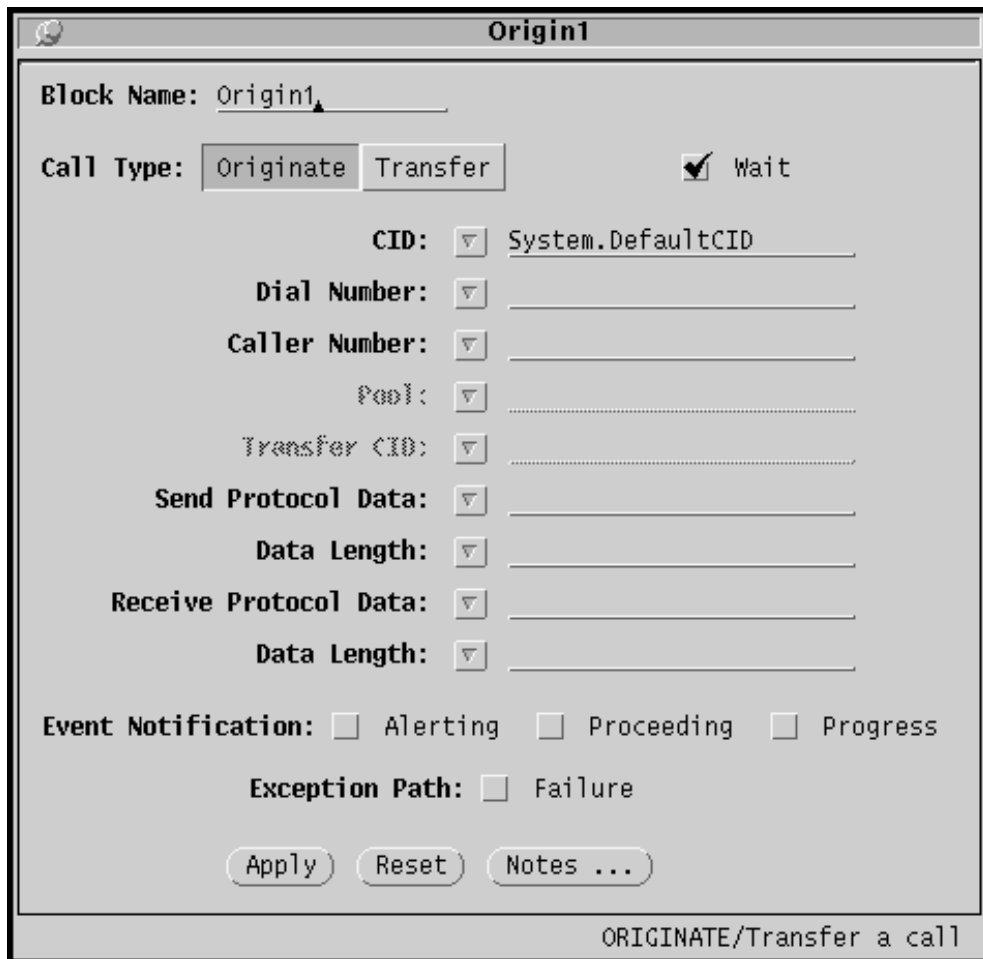
### Phone Op



Use the Phone Op (originate) block in applications that originate a call to an outside party. A Phone Op (originate) block causes the application to outdial a specific number and connect with the outside party.

For example, use Phone Op block in an application for a mortgage company that calls local residents to inform them about current home equity loan rates.

For complete information on the Phone Op block, see the *PeriProducer User's Guide*.



The screenshot shows the configuration window for the 'Origin1' block. The window has a title bar with a small icon and the text 'Origin1'. Inside, the 'Block Name' is set to 'Origin1'. The 'Call Type' section has two buttons: 'Originate' (selected) and 'Transfer'. To the right of these buttons is a checked checkbox labeled 'Wait'. Below this, there are several fields, each with a dropdown arrow and a text input: 'CID' (set to 'System.DefaultCID'), 'Dial Number', 'Caller Number', 'Pool', 'Transfer CID', 'Send Protocol Data', 'Data Length', 'Receive Protocol Data', and another 'Data Length'. At the bottom, there are three checkboxes for 'Event Notification': 'Alerting', 'Proceeding', and 'Progress', all of which are unchecked. Below these is an 'Exception Path' section with an unchecked checkbox for 'Failure'. At the very bottom, there are three buttons: 'Apply', 'Reset', and 'Notes ...'. The bottom right corner of the window contains the text 'ORIGINATE/Transfer a call'.

Function	Variation
Originate	Supervised transfer not supported.
Transfer	– Supported. – Internal transfers require a special format.
Send/Receive Protocol Data	Not supported.
Event Notification	Not supported.

### Transferring calls internally

Specify the following Dial Number string to transfer calls internally:

@<dn> [ [:<label>, <data>] . . . ]

where `dn` is the dial number of the BCM application to which you are transferring the call, `label` is the label of the call data to set, and `data` is the new value of the label.

Currently, only the following labels are available:

label	value	description
1	<mailbox#>	Transfers to voicemail for caller to leave message in mailbox.
2	<mailbox#>	Transfers to voicemail for caller to log into mailbox.

Terminate the string with a the PeriProducer system constant, `LowValues`.

## Read



Use the Read block to obtain caller input through touchtones. Input data can either be a number or a string of characters. Prompts can be spoken before the caller enters the data.

For complete information on the Read block, see the *PeriProducer User's Guide*.

**Read1**

Block Name: Read1 ☒ Wait

Initial Prompt...   Accept Touch-Tones During/After Prompt

CID:  System.DefaultCID

Store Data In:  \_\_\_\_\_

Store Data Length In:  \_\_\_\_\_

Store Data Type In:  \_\_\_\_\_

Retries: 0

Allow Partial DTMF Data: ☐

DTMF Length: 1   Minimum DTMF Length: 0

No Data Timer:  unchanged Partial DTMF Data Timer:  unchanged

Reprompt Type	Prompt	Mode	Abort	Accept

Reprompt Type:  No Data

Prompt...     Accept Touch-Tones During/After Prompt

**Exception Paths**

☐ No Data ☐ No Data Immediate ☐ Length Error ☐ Recognition Error ☐ Other

READ Data Entered by the Caller

Function	Variation
Speech Recognition	Not supported.

## Receive Fax



Use the Receive Fax block to receive a fax from an external fax machine.

For complete information on the Receive Fax block, see the *PeriProducer User's Guide*.

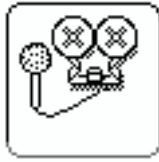
Function	Variation
Receive In	Faxes are stored in <code>/var/nm/ivr/fax</code> . BIM assigns a unique file name to received faxes.
Maximum Pages	Not supported.
Options	Not supported.



For applications that receive faxes, you may want to dedicate a specific line to receive them. Depending on your supported protocols, you can then obtain the dialed phone number (DNIS) to learn whether a fax should be received.



## Record



Use the Record block to acquire either a single message recording from the caller or a group of related recordings.

For complete information on the Record block, see the *PeriProducer User's Guide*.

**Record1**

Block Name: Record1 CID: System.DefaultCID

Mode: Sync Record Begin Async Record End Async Record ☒ Mult

Record Into: MMF Item WAV Database Entry ☐ Failure

Database Folder: CMRExample

Prompt	Data Card	Duration
prompt #1	token1	194
prompt #2	token2	120
prompt #3	token3	240
prompt #4	token4	60

Add Change Delete

Prompt... prompt #1

Data Card Name: CMRExample.token1

Append at Offset: 10th sec ☐ Append

Index in List: 1 Vocab Item Data Card

Write to Database File: /tmp/testfile

Maximum Duration: 194 seconds

DTMF Abort Characters:

Encoding: PCM

☐ Full Duplex ☐ Keep On Error

Apply Reset Notes ... Local Context ...

RECORD a Message from the Caller

Function	Variation
Data Card Name	Specifying a CMR token or a named element to record into not supported.
Append	Not supported.
Asynchronous Recording	Not supported.

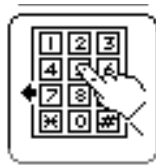
### Resource



External resources are essentially software daemons that control the function of some other device or software process.

For a list of supported resources, see [Resources Support on page 65](#).  
for a list of supported resources. For complete information on the Resources block, see the *PeriProducer User's Guide*.

## Select




The Select block accepts a single touchtone key from the caller and then determines the execution path based on that selection. The block is usually used to receive a caller's choice in response to a voice menu.

For complete information on the Select block, see the *PeriProducer User's Guide*.

**Select1**

Block Name: Select1



CID:

Initial Prompt... 





☐ Accept Touch-Tones (during/After Prompt)

**Selections:**





1	2	3
4	5	6
7	8	9
*	0	#

**Retries:**   

**No Data Timer:**

Re-Select Prompt...    

☐ Accept Touch-Tones (during/After Prompt)

No Data Reprompt...    

☐ Accept Touch-Tones (during/After Prompt)

**Exception Paths**

☐ No Data    ☐ No Data Immediate    ☒ Invalid Selection

SELECT from a Menu

Function	Variation
Speech Recognition	Not supported.

## Send Fax



Use the Send Fax block to send a fax that has already been composed and stored as a TIFF file or a .txt file.

For complete information on the Send Fax block, see the *PeriProducer User's Guide*.

SndFax5

Block Name: SndFax5
☒ Wait

CID: System.DefaultCID

Send From: FaxExample.FaxSendToken

Local Station ID:

Tag Line:

Font:

Fax Tag List

Add Change

Tag:

Exceptions:
☐ No Fax Available
☐ Send Failure

Apply Reset Notes ...

SEND a FAX Transmission

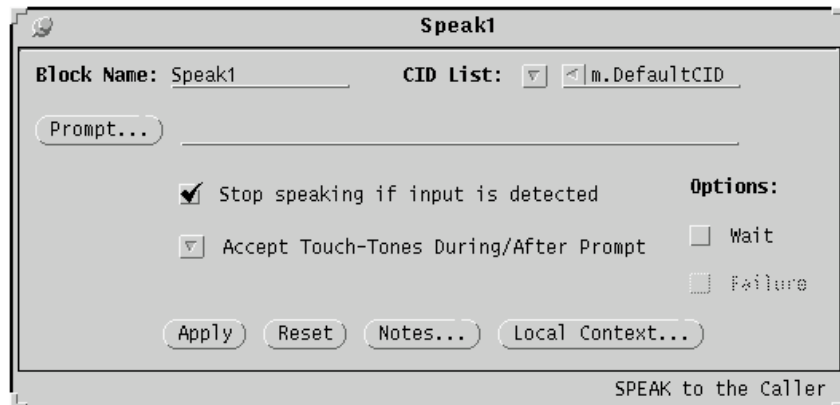
Function	Variation
Send from	<ul style="list-style-type: none"> <li>– To send a fax, define a composite folder with an MSToken card and a character data card (len=41). Set the initial value of the character data card to the fax file name.</li> <li>– MSToken must contain the filename of the fax to send. Send Fax assumes that files not listed with a full path are stored in the default directory of /var/nn/ivr/fax.</li> <li>– File names must be shorter than 255 characters.</li> </ul>

## Speak



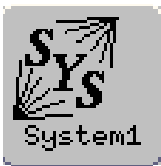
The Speak block provides voice output to the caller, either to present the caller with requested information or to prompt the caller to enter data. Click the **Prompt...** button to open a window where you can add vocabulary phrases.

For complete information on the Speak block, see the *PeriProducer User's Guide*.



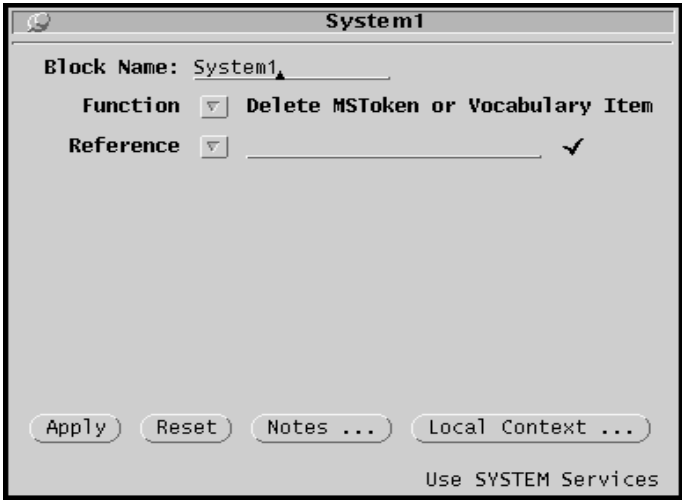
Function	Variation
Prompt...	<ul style="list-style-type: none"> <li>– Only Element Name and Direct Element name are supported as speak options.</li> <li>– TTS Literal is not supported.</li> </ul>
Accept Speech/Input	Not supported.

System



PeriProducer applications use many predefined system functions known as call functions. Call functions may use internal system variables and sometimes perform tasks that are not readily accessible using the supplied building blocks. You can access these functions with the System block.

For complete information on the System block, see the *PeriProducer User's Guide*.



Function	Variation
Function	Delete Vocabulary Item function (part of Delete MToken or Vocabulary Item function) not supported.



# 4

## **Environments Support**

**This chapter covers:**

- 1. Environments Overview**
- 2. Environments**

### Environments Overview

Environment options control line-specific functions and application behavior. They can be set or changed in an Environment block. There are three environment categories to choose from.

- “Application and System Environment” on page 56)
- “Host Environment” on page 59
- “Generic Environment Options” on page 60

The tables in this chapter specify which options are supported in PeriProducer 3.00 when operating on the BCM platform.

For more information on all environment options, see the *PeriProducer User’s Guide*.

### Application and System Environment

**Application and System Environment Options**

Environment Option	Supported	Description, including variations for the BCM
DtmfFirst	Supported	<p>Maximum time allowed before first tone.</p> <p>The maximum amount of time allowed for the caller to enter the first touchtone in an input sequence. The timer starts as soon as the input prompt finishes speaking. If the timer expires, the <b>getinputfail</b> condition (with Status <b>ErrFirst</b>) is generated.</p>
DtmfGuard	Not supported	<p>Enable TT extended time verification during voice output and record</p> <p>If DtmfGuard is on, the system does not consider a touchtone valid until it lasts for DtmfToneDur time. DtmfGuard should be used only for testing and diagnostics. If DtmfGuard is off, any detected touch-tone longer than 40 ms is considered valid.</p>
DtmfInter	Supported	<p>Maximum time allowed between tones.</p> <p>The maximum amount of time allowed for the caller to pause between entering touchtones in a multiple-key input sequence. The timer starts as soon as the caller enters the first touch-tone. If the <i>inter</i> timer expires, and timeout is off, <b>getinputfail</b> is generated (with Status <b>ErrInter</b>) and no caller input is returned.</p>
DtmfToneDur	Not supported	<p>Extended touchtone verification time.</p> <p>Specifies the amount of time a touchtone must be detected before it is considered valid. The minimum recommended value is 40 ms (the default). DtmfToneDur is used only when DtmfGuard (see above) is enabled.</p>



## Application and System Environment Options

LinePickUp	Supported	<p>Blind or guard timer for completing outbound calls.</p> <p>In a system without call progress detection or answer supervision, expiration of the pickup timer results in the <b>origcmp</b> or <b>transfercmp</b> condition being returned to the application, following outdial or referral, respectively. The condition indicates successful completion of the call transfer function.</p> <p>Note: In a system containing call progress detection or answer supervision, the LinePickUp timer should be set to a value high enough so that it does not preempt any of these functions. The default is 30 seconds.</p>
LineStandbyMode	Not supported	<p>Set state between calls.</p> <p>Specify the tone a caller hears when an incoming call reaches a line that is between ending a call and ready to accept another call. The default is the busy tone.</p>
LineTotalCall	Supported	<p>Total call timeout (including any time in referral).</p> <p>The maximum duration for a call. The timer starts when the call is answered. When the total timer expires, <b>calltim</b> is generated. Note that the total call duration includes any time spent in referral. If the call is in referral when the total timer expires, the application does not receive <b>calltim</b>; instead, the LineTotalCall timer restarts.</p>
LvrFirst	Not supported	<p>First speech timer.</p> <p>The maximum amount of time allowed for the caller to begin speaking input (and having it recognized). This is similar to the DtmfFirst option, but is specific to speech recognition. If the timer expires, the <b>getinputfail</b> condition (with Status <b>ErrFirst</b>) is generated.</p>
LvrTooMuchSpeech	Not supported	<p>Maximum time for speech to end once it begins.</p> <p>The amount of time allowed for the caller to finish speaking requested input once recognition starts. If this timer is consistently exceeded, either there is background noise being detected as speech, or callers do not have enough time to speak the requested input. Timer expiration results in the <b>getinputfail</b> condition (with Status <b>ErrTooMuchSpeech</b>).</p>
LvrTooSlowRecognizer	Not supported	<p>Maximum time for recognizer result after speech ends.</p> <p>The maximum amount of time the application should wait for recognition results after recognition stops. If this timer expires, the recognition attempt is aborted and the application receives the <b>getinputfail</b> condition (with Status <b>ErrTooSlowRecognition</b>).</p>

### Application and System Environment Options

MediaHighWaterMarkEvent	Not supported	<p>Notify if media high water mark reached.</p> <p>Enables or disables sending the <b>mmfhigh</b> condition to the application.</p>
MediaLowWaterMarkEvent	Not supported	<p>Notify if media low water mark reached.</p> <p>Enables or disables sending the <b>mmflow</b> condition to the application.</p>
RecFirstSil	Not supported	<p>Maximum silence allowed before voice response.</p> <p>The amount of time the caller has to begin speaking at the beginning of the recording. If the caller does not begin speaking within this time period, the recording terminates.</p>
RecInterSil	Supported	<p>Maximum duration of intermediate silence.</p> <p>The amount of time the caller can remain silent (after beginning to speak) before the system automatically terminates the recording. No error condition is returned because the system assumes that the caller is finished recording and the message is valid. This should always be set to higher than RecSilStrip.</p>
RecSilStrip	Not supported	<p>Do not record silence periods longer than.</p> <p>To save disk space during recording, silence periods greater than RecSilStrip and less than RecInterSil are not included in the recording. RecSilStrip should always be set less than RecInterSil.</p>
RscConfig	Not supported	<p>Configuration string for OSCAR resource.</p> <p>Send configuration parameters directly to the OSCAR resource. This may be entered multiple times within the Environment block.</p>
RscLabel	Not supported	<p>Change label of an OSCAR resource.</p> <p>Switch the label (grammar) used by an OSCAR resource. This is typically used while the OSCAR resource is already allocated. The application can perform recognitions from different vocabularies without releasing the resource.</p>

## Host Environment

### Host Environment Options

Environment Option	Supported	Description, including variations for the BCM	
er	Supported	Set the enquiry timeout or response timeout.  The amount of time the host has to respond to an enquiry. If the host does not respond within the <code>er</code> interval, <b>hrcvtxtfail</b> or <b>hrcvmapfail</b> is generated (with Status <b>ErrTimeout</b> ). This must be set higher than the <code>intime</code> timer .	
headermode	Supported	Enables or disables translation of 24-byte header/PACE messages.  If <code>headermode</code> is enabled, 24-byte header messages are translated. If <code>headermode</code> is disabled, the header messages are not translated but are instead passed to the application.	
hostctl	Supported	Enables or disables host up or down messages to applications.  If <code>hostctl</code> is enabled, <b>hctlon</b> (host is up) or <b>hctlloff</b> (host is down) is sent to the application when the host changes state. If <code>hostctl</code> is disabled, these conditions are not generated.	
intime	Supported	Set the intermediate ("Please hold on.") timeout.  The enquiry or response intermediate timer can be used to time the playing of a <i>please hold on</i> message to the caller while waiting for host data . When <code>intime</code> expires, <b>hostinter</b> is generated. This timer must be set lower than the <code>er</code> timer and can be disabled by setting it to 0.	
refer	Supported	Set the phone line mode after a 24-byte header referral.	
	Supported	input	Wait for touchtone input from the line after establishing the referral.
	Supported	output	Send a voice prompt to the referral line after establishing the referral.
	Supported	hangup	Hang up after establishing the referral.
rfo	Supported	Set the 24-byte header referral phone number.  If a referral number is not specified for <code>rfo</code> , it is assumed that the host provides the referral number.	
session	Supported	Set the host session number.  Sets the host number that the line uses for host-based I/O. If the application does not use VT pooling, setting <code>session</code> to 0 effectively disables the host link. Note that the <code>usepool</code> option automatically sets <code>session</code> to 0 (when using VT pooling), so there is no need to set <code>session</code> to 0 when using VT pooling.	
setaid	Supported	Set line-specific AID (override <code>aiddefault</code> for next send only)  Changes the default AID key for the line on which it is running, that is, specifies the desired AID key and associates it with the next send.	

Host Environment Options		
unlocks	Supported	Number of unlocks received before actually unlocking keyboard.  Causes the COMMGR to ignore one less than the specified number of unlocks following a SEND TEXT/MAP command, before actually unlocking the keyboard.
usepool	Supported	Specify name of virtual terminal pool to use  When using VT pooling, set the pool to use for host transactions. If <code>usepool</code> is not specified, the current pool is used. <code>usepool</code> automatically sets session to 0.

Generic Environment Options

Generic Environment Option	Supported?
Application and system options	No
Host manager options	No
Vengine options	Yes

Specifies an environment option (for the COMMGR (Host) or VENGINE), which is not available in the existing environment classes. The Generic Environment options permit use of data cards (as well as literals) to specify option values.

## VENGINE Environment

### VENGINE Environment Options

Environment Option	Supported	Description, including variation for the BCM
alarmdbtask	Supported	Set the alarm database task name.  Specifies the task name that alarms are associated with. This function is also available in the Application Configuration window under the Main Container Properties menu.
apprestart	Supported	Restart the application when it ends.  Forces the application to restart automatically.
centurymark	Supported	Set the century boundary.  Specifies how PeriProducer speaks a two-digit year.  If the year is greater than or equal to the centurymark, PeriProducer speaks the 20th century; if the year is less than the centurymark, PeriProducer speaks 21st century.
debug	Supported	Turn Vengine debugging on or off (a/n) [as by AMU command: debug mw a/n].  Dynamically enables (a) or disables (n) VENGINE debugging.
deltimedcall	Supported	Named CALL Function should no longer be timed.
intermsg	Supported	Set the host intermediate timeout message item.  Specifies the vocabulary element to play if the host intermediate enquiry or response timer expires.
mode	Supported	Switches dynamically to IVR or World Wide Web mode.  To be able to switch from IVR to Web mode, you must start the VENGINE running the application in Web mode (that is, <b>vengine -w</b> ).
notice	Supported	Ensure delivery at or after a blocking event.
numset	Supported	Set voice output conversion types.  Specifies the level of concatenation for producing numeric speech output, that is, the number of elements used to speak each number. For example, an application can speak 1000 as "one-thousand" (one element) instead of "one", "thousand" (two elements).
	Supported	better Provides maximum concatenation up to 9,999.
	Supported	best Provides maximum concatenation from 10,000 and up. Up to 10,000, there is no difference between the better and best options.
	Supported	dollars Speaks numeric data items as dollars and cents. Dollars automatically implies the better method of concatenation. This can be combined with the best option.
	Supported	off Does not concatenate any numeric speech.

## VENGINE Environment Options

rscertime	Supported	Sets the error timeout for non-OSCAR-based resources. When rscertime expires, the application receives <b>ertimeout</b> .
rscintime	Supported	Sets the intermediate timeout for non-OSCAR-based resources. When rscintime expires, the application receives <b>intertimeout</b> .
setvpsline	Supported	Uses MPS:line for outgoing messages.
softterm	Supported	Set the soft termination timeout.  Specifies the maximum amount of time that an application can continue running after a soft termination (kill) signal is issued. This function is also available in the Application Configuration window under the Main Container Properties menu.  Setting the soft termination timeout within the application overrides the application configuration from PeriView or the VENGINE command line options.  You must explicitly set the soft termination timeout in linked applications (or accept the value inherited from the mail application).
speak	Supported	Set voice output language conventions.  Determines which set of language rules the application uses to speak numbers, dates, time, and money. These rules include the order the application uses for the tokens, as well as any additional structures unique to each language. For example, when an application speaks an even dollar amount (that is, without cents) using British language rules, the application speaks “exactly” after the dollar amount.
	Supported	Japanese Select the Japanese method.
	Supported	Cantonese Select the Cantonese method.
	Supported	Mandarin Select the Mandarin method.
	Supported	British Select the UK (British) English method.
	Supported	Arabic Select the Arabic method.
	Supported	U.S. Select the American English method.
	Supported	European Use day-month order for dates (British and U.S. only).
	Supported	Improved Select the Improved method.
	Supported	Korean Select the Korean method.
	Supported	TDD Literal Select TDD (Telecommunications Device for the Deaf) Literal method. This is not currently supported.
	Supported	TDD Name Select TDD Name method. This is not currently supported.
	Supported	Spanish Select the Spanish method.
strictsc	Supported	Postpone delivery of unexpected resource message.
timedcall	Supported	Named CALL Function should be timed.
unnotice	Supported	Restore default processing (remove from <b>notice</b> list).
vmstimedcall	Supported	Named CALL Function should be timed, is interruptible.

**VENGINE Environment Options**

vpsrcvtime	Supported	<p>Set the system response timeout</p> <p>If the system does not respond to a request within the <code>vpsrcvtime</code> interval, <code>vrto</code> is generated. This function is also available in the Application Configuration window under the Main Container Properties menu.</p> <p>Setting the response timeout (<code>vpsrcvtime</code>) within the application overrides the application configuration from PeriView or the VENGINE command line options.</p> <p>By default, linked applications inherit the <code>vpsrcvtime</code> set by the main application. To change this, the linked application must explicitly set <code>vpsrcvtime</code>.</p>
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# Resources Support

**This chapter covers:**

- 1. About Resources**
- 2. Supported Resources**

### About Resources

Resources refer to external resources that PeriProducer applications can access. You can set applications to get information from a resource, to send information to a resource, or to receive input from a resource.

### Supported Resources

Resource	Supported?
ausvr (Audio Server)	No
jsb (Java Services Bridge)	No
htmls (HyperText Markup Language)	No
lvr-a (Nuance Large Vocabulary Recognition)	No
extts-a (TrueTalk)	No
screendaemon (screendaemon)	No
cti (Computerized Telephony Integration)	No
gencti (Computerized Telephony Integration, generic method)	No
vtcpd (VAS/TCP Daemon)	Yes
phone (phone line)	Yes
ccss (Common Channel Signaling Server)	No
tcap (Transaction Capabilities Application Part, SS7 protocol)	No
sip (Session Initiation Protocol)	No
generic (a generic method to generate code)	No
xgeneric (a generic method to generate code)	No
phonePRS (Phone Resource Server)	No
DTMF (Dial Tone Multi Frequency)	No
Player	No
Recorder	No
FullDuplexRecorder	No
Fax	No

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